

(FILE 'HOME' ENTERED AT 11:57:29 ON 23 APR 2003)

FILE 'REGISTRY' ENTERED AT 11:57:36 ON 23 APR 2003

L1 2974 S 50-21-5/CRN OR 79-33-4/CRN OR 95-96-5/CRN
L2 35 S L1 AND 1/NC
L3 4 S L2 AND PES/PCT
L4 0 S POLYLACTIC ACID/CN
L5 0 S POLYLACTICACID/CN
L6 0 S POLYETHYLENECARBONATE/CN
L7 0 S POLYETHYLENECARBONATE?
L8 16482 S PC /PCT
L9 47 S L8 AND POLYETHYLENE?
L10 14 S L8 AND POLYPROPYLENE?

FILE 'CA' ENTERED AT 12:03:03 ON 23 APR 2003

L11 1 S L3 AND (L9 OR L10)
L12 151 S L3 AND L8 NOT L11
L13 0 S WO0212395/PN
L14 1 S WO200212395/PN

FILE 'REGISTRY' ENTERED AT 12:42:48 ON 23 APR 2003

L15 1 S 183815-90-9/RN

FILE 'CA' ENTERED AT 12:43:35 ON 23 APR 2003

FILE 'CA' ENTERED AT 12:43:46 ON 23 APR 2003

L16 1 S L15 AND L8

L12 ANSWER 117 OF 151 CA COPYRIGHT 2003 ACS
AN 122:57303 CA
TI Supertough poly(lactide)s
AU Joziasse, C. A. P.; Topp, M. D. C.; Veenstra, H.; Grijpma, D. W.;
Pennings, A. J.
CS Dep. Polymer Chem., Univ. Groningen, Groningen, 9747 AG, Neth.
SO Polymer Bulletin (Berlin) (1994), 33(5), 599-605
CODEN: POBUDR; ISSN: 0170-0839
PB Springer
DT Journal
LA English
CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 39
AB Semi-cryst. and amorphous copolymers of lactide and glycolide were modified with degradable rubbers based on .epsilon.-caprolactone. The influence of crystallinity of the matrix, type of rubber and chain architecture on the impact resistance of the resulting materials was investigated. With a poly(L-lactide-co-.epsilon.-caprolactone) rubber semi-cryst. poly(lactide)s could be impact modified to a greater extent than amorphous non-crystallizable lactide matrixes. Poly(trimethylene carbonate-co-.epsilon.-caprolactone) was used in blends and linear and star-shaped block copolymers which yield supertough materials that do not break in Izod notched impact testing. Rubber content appears crit.
around
20 wt. percent, where a sharp transition is obsd.
ST impact property polylactide rubber modified; caprolactone copolymer rubber
impact modification polylactide; lactide caprolactone copolymer rubber
impact modifier
IT Polyesters, properties
RL: PRP (Properties)
(prepn. and impact properties of polylactides modified with L-lactide-.epsilon.-caprolactone or poly(trimethylene carbonate-co-.epsilon.-caprolactone) rubbers)
IT Biodegradable materials
Impact-resistant materials
(prepn. and properties of impact resistant polylactides modified with L-lactide-.epsilon.-caprolactone or .epsilon.-caprolactone-trimethylene carbonate rubbers)
IT Rubber, synthetic
RL: PRP (Properties)
(caprolactone-lactide, prepn. and properties of impact resistant polylactides modified with L-lactide-.epsilon.-caprolactone or .epsilon.-caprolactone-trimethylene carbonate rubbers)
IT Rubber, synthetic
RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)
(caprolactone-trimethylene carbonate, prepn. and properties of impact resistant polylactides modified with L-lactide-.epsilon.-caprolactone or .epsilon.-caprolactone-trimethylene carbonate rubbers)
IT **160080-65-9**
RL: MOA (Modifier or additive use); USES (Uses)
(4-armed star or triblock, impact modifiers; prepn. and properties of impact resistant polylactides modified with L-lactide-.epsilon.-caprolactone or .epsilon.-caprolactone-trimethylene carbonate rubbers)
IT 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26161-42-2
26680-10-4, PolyLactide 33135-50-1, Poly(L-lactide)

RL: PRP (Properties)

(prepn. and impact properties of polylactides modified with L-lactide-.epsilon.-caprolactone or poly(trimethylene carbonate-co-.epsilon.-caprolactone) rubbers)

IT 116828-94-5

RL: MOA (Modifier or additive use); USES (Uses)
(rubber; prepn. and impact properties of polylactides modified with L-lactide-.epsilon.-caprolactone or poly(trimethylene carbonate-co-.epsilon.-caprolactone) rubbers)

IT 65408-67-5, L-Lactide-.epsilon.-caprolactone copolymer

RL: PRP (Properties)

(rubber; prepn. and impact properties of polylactides modified with L-lactide-.epsilon.-caprolactone or poly(trimethylene carbonate-co-.epsilon.-caprolactone) rubbers)

IT 26780-50-7, Glycolide-Lactide copolymer

RL: PRP (Properties)

(triblock; prepn. and impact properties of polylactides modified with L-lactide-.epsilon.-caprolactone or poly(trimethylene carbonate-co-.epsilon.-caprolactone) rubbers)

L12 ANSWER 110 OF 151 CA COPYRIGHT 2003 ACS
 AN 123:145761 CA
 TI Polymer compositions with pearly gloss and good fluidity and thermal and mechanical properties
 IN Kido, Takayasu; Yoshimura, Masaji; Yoda, Kaoru
 PA Mitsui Toatsu Chemicals, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08L069-00
 ICS C08L067-04
 CC 37-6 (Plastics Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07109413	A2	19950425	JP 1993-258275	19931015
	JP 3279768	B2	20020430		
PRAI	JP 1993-258275		19931015		

AB Title compns. comprise (A) arom. polycarbonates and (B) poly(lactic acid) and/or copolymers from lactic acid derivs. and other hydroxycarboxylic acids. Thus, a compn. contg. 10 parts poly(L-lactic acid) and 90 parts Panlite L 1225 was melt-kneaded, pelletized, and injection-molded to give a test piece having pearly gloss, and good fluidity and thermal and mech. properties.
 ST pearly gloss arom polycarbonate blend; polylactic acid arom polycarbonate blend
 IT Plastics
 RL: PRP (Properties)
 (polymer compns. with pearly gloss and good fluidity and thermal and mech. properties)
 IT Polycarbonates, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (arom., polymer compns. with pearly gloss and good fluidity and thermal and mech. properties)
 IT Polyesters, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (hydroxycarboxylic acid-based, polymer compns. with pearly gloss and good fluidity and thermal and mech. properties)
 IT 24936-68-3, Panlite L 1225, properties 26161-42-2
 26811-96-1, Poly(L-lactic acid) 31587-11-8,
 Poly(DL-lactic acid) 51063-13-9 54512-07-1, Glycolic acid-L-lactic acid copolymer 147453-82-5
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (polymer compns. with pearly gloss and good fluidity and thermal and mech. properties)

L12 ANSWER 44 OF 151 CA COPYRIGHT 2003 ACS
AN 134:209029 CA
TI Transparent biodegradable films having excellent impact resistance
IN Terada, Shigenori; Takagi, Jun
PA Mitsubishi Plastics Industries, Ltd., Japan; Mitsubishi Gas Chemical Co.,
Ltd.
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08J005-18
ICS C08L067-04; C08L069-00
CC 38-3 (Plastics Fabrication and Uses)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001064414	A2	20010313	JP 1999-241630	19990827
PRAI JP 1999-241630		19990827		

AB The films comprise 78:25-20:80 mixt. of polylactic acid and copolymer of aliph. dicarboxylic acids, aliph. dihydroxy compds., and carbonates. Thus, a film contg. a 50:50 mixt. of polylactic acid (EcoPla 3000D) and 4.58:7.0:1.28 succinic acid-1,4-butanediol-diphenyl carbonate copolymer showed tensile elongation 320 and 280% in MD and TD, resp., light transmittance 88%, and fish eye count 8.

ST biodegradable polylactic acid film; transparent biodegradable polylactic acid film; impact resistance biodegradable polylactic acid film; succinic acid butanediol diphenyl carbonate copolymer

IT Polyesters, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polycarbonate-; transparent biodegradable films having good impact resistance)

IT Polycarbonates, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polyester-; transparent biodegradable films having good impact resistance)

IT Biodegradable materials
Transparent materials
(transparent biodegradable films having good impact resistance)

IT Polyesters, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(transparent biodegradable films having good impact resistance)

IT Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(transparent biodegradable films having good impact resistance)

IT 26023-30-3, EcoPla 3000D **26100-51-6**, Polylactic acid
167945-43-9, 1,4-Butanediol-diphenyl carbonate-succinic acid copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(transparent biodegradable films having good impact resistance)

L Number	Hits	Search Text	DB	Time stamp
1	1075	((525/450) or (525/411) or (525/413) or (525/415)).CCLS.	USPAT; US-PGPUB	2003/04/23 13:49
2	99512	polycarbonate\$	USPAT; US-PGPUB	2003/04/23 13:49
3	150	ethylenecarbonate\$	USPAT; US-PGPUB	2003/04/23 13:49
4	7023	ethylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:50
5	9558	propylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:51
6	25	polyethylenecarbonate\$ or polypropylenecarbonate\$	USPAT; US-PGPUB	2003/04/23 13:51
7	265	polyethylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:52
8	274	polypropylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:53
9	5	polytrimethylenecarbonate\$	USPAT; US-PGPUB	2003/04/23 13:53
10	47	trimethylenecarbonate\$	USPAT; US-PGPUB	2003/04/23 13:54
11	1012	trimethylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:54
12	95	polytrimethylene adj carbonate\$	USPAT; US-PGPUB	2003/04/23 13:55
13	354	((525/450) or (525/411) or (525/413) or (525/415)).CCLS.) and (polycarbonate\$ or ethylenecarbonate\$ or (ethylene adj carbonate\$) or (propylene adj carbonate\$) or (polyethylenecarbonate\$ or polypropylenecarbonate\$) or (polyethylene adj carbonate\$) or (polypropylene adj carbonate\$) or polytrimethylenecarbonate\$ or trimethylenecarbonate\$ or (trimethylene adj carbonate\$) or (polytrimethylene adj carbonate\$))	USPAT; US-PGPUB	2003/04/23 13:56